

ABSTRACT OF THE DISCLOSURE

The invention detects the thickness error of the transparent substrate using a general focus error signal detection system employing the fact that the reflecting light from the optical disk causes distortions in diffraction image at the detection plane or unsymmetrical expansions before and after the detection plane due to spherical aberration as a result of thickness errors of the transparent substrate. The absolute amount of the thickness error of the transparent substrate and its symbol are detected by detecting the difference between the absolute value of the positive side peak and the absolute value of the negative side peak of the focus sum signal, or the difference in focus positions between the peak point of the focus sum signals and the zero point of the focus error signals using the focus error signal detection system according to the knife-edge method. This enables it to detect the thickness error of the transparent substrate without using a special optical system.